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The Application of General International Law in Outer Space

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THE APPLICATION OF GENERAL INTERNATIONAL LAW IN OUTER SPACE

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I. Introduction

When the "Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies" (Treaty or Space Treaty)[1] entered into force, it became increasingly obvious that it was not the nature of outer space itself which determined its legal status. In the past, the freedom of the high seas had found its legal basis, not in the nature of the sea but in the general consensus of states. Likewise the legal regime of outer space has been created, its leading principles being set out in the Space Treaty.

For years before the advent of the Space Treaty some authors expressed grave doubts about the applicability of public international law to the realm of outer space.[2] During deliberations leading to the conclusion of the Space Treaty certain delegates seemed even to regard international law and the United Nations Charter as an anachronism.[3] Further, in spite of the birth of the Space Treaty or perhaps even as a result of it, some authors display a certain hesitancy towards applying rules of international law to the Treaty other than those explicitly stated therein.

The present writers suggest that general international law, which governs the conduct of states in their mutual relations, is not confined to the ill-defined upper limit of national airspace, but is applicable to activities of states in the vast realm of outer space.[4] Thus, the Space Treaty incorporates rules of general international law, apart from norms *legis specialis* derogating therefrom.

However, there are also a large number of rules of general international law which, although not expressly mentioned by the Space Treaty, are *ipso iure* to be applied to outer space (including the moon and other celestial bodies) thus forming an ingredient of its legal regime. This is

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[1] Hereinafter referred to as the "Space Treaty." For text, see Annex to U.N. Doc. A/RES/2222 (XXI) (1967). Also reproduced in 33 J. Air L. & Com., 132 (1967). The Treaty, which was simultaneously opened for signature in Washington, Moscow and London on 27 January 1967, entered into force on 10 October of that year.

[2] *See, e.g.*, Schick, *Problems of a Space Law in the United Nations*, 13 Int'l & Comp. L.Q. 977 (1944); Mankiewicz, *Some Thoughts on Law and Public Order in Space*, 2 Can. Y. B. of Int'l L. 260 (1964).

[3] *See* particularly the French delegate Mr. Lemaitre, A/AC. 105/C.2/SR. 70 (3.8.66), at 14, and the Brazilian delegate Mr. de Carvalho Silos, A/C 1/SR. 1492, at 15.

[4] *Cf.* Cheng, *The 1967 Space Treaty*, 95 *J. du Droit Int'l (Clunet)* 3, 664 (1968).

the logical conclusion as the Space Treaty—and it is apparent from its title—contains only the leading principles of the outer space legal regime. Accordingly, it is a stipulation of generally formulated rules. In their interpretation and application, however, other rules, which are incumbent on these leading principles, cannot be ignored. It is indifference towards this approach which has caused some writers to be misled.[5]

The term "principles" cannot simply be identified with universal international law at large, as rules which are in force between all states.[6] This term must also be understood as a "common denominator" of individual rules having a more limited scope which are subsumed to the "principles" in question; the principles being, therefore, an abstraction and generalisation of relevant underlying rules.[7] Such a deduction in no way weakens the binding force of principles stated in the Space Treaty, which in itself, is nothing more than an example of the application of recognised treaty law to outer space. By approaching an evaluation of the Treaty in this manner, the relevant *ex lege* applicable rules of general international law must, therefore, not be omitted.

It is not the intention of the present writers to provide an exhaustive list of general international law rules applicable to the realm of outer space. It has been necessary, for the purpose of brevity, to select certain important principles whose application has been the subject of much controversy. This approach enables the authors not only to describe and analyze the Space Treaty but also to indicate the scope of rules of general international law which are applicable to outer space.

II. Freedom of Outer Space

A. *Prohibition On Occupation And Prescription*

Article II of the Space Treaty gives decisive and uncontestable significance to the legal meaning of "freedom of outer space." This provision excludes all types of national appropriation by claim of sovereignty, in particular by means of use or occupation, as well as by any other means.

It may not be accidental that the Treaty specifically indicates two modes of acquisition of territory (by "means of use" and by "occupation") while other methods of acquisition, as known by general international law, are generally excluded. The general elimination includes such modes of acquisition as cession, accretion (which for the scope of the treaty is almost impracticable) and annexation. The latter, if the consequence of an illegal use of force is already prohibited by general international law and the United Nations Charter. Indeed, these forms of acquisition of

[5] *See, e.g.*, Vlasic, *The Space Treaty: A Preliminary Evaluation*, 55 Calif. L. Rev. 512-13 (1967): "The principles . . . as formulated in the treaty are too general to provide states with adequate guidance in solving certain practical problems . . . . It is not enough . . . merely to declare that all areas of outer space, including celestial bodies, are 'free' and that no claims to sovereignty are allowed."

[6] *Cf.* The Case of the S.S. "Lotus" [1927] P.C.I.J., Sér. A, No. 9, at 17.

[7] *Cf.* Schwarzenberger, *The Fundamental Principles of International Law*, 87 Recueil des Cours, Academie de Droit Int'l 200 (1955/I).

state territory were generally excluded because it was presumed that the concept of *cuis est solum eius est usque ad sidera* had long been abandoned.

Until there was undoubted general consensus to the contrary (as finally manifested in the Space Treaty), states should have regarded outer space, including the moon and other celestial bodies as *res nullius, i.e.*, not yet appropriated by a subject of international law.[8] Further, to acquire *territorium nullius* the only appropriate modes are those explicitly excluded from the Treaty, all others being indicated generally in case of any doubt.

Occupation, as an original mode of acquisition of state territory,[9] is effected through taking possession of, and establishing an administration over territory in the name of and for the acquiring state. The act of appropriation must be such that the state intentionally acquires sovereignty over the territory which at that time is not under the sovereignty of another state.

It is suggested that the Space Treaty specifically prohibits "means of use" as a mode of acquisition because general international law recognises undisturbed and continuous possession, lasting for some considerable length of time, as producing a sufficient title of acquisition of sovereignty over a territory. This is generally known as prescription (*usucapio*).[10] As international law does not require *bona fide* possession, the possessor may lawfully acquire territory although possession itself was wrongful, that is even when violating the rights of others, provided the situation remains stable for a certain length of time and continues undisturbed.

This latter aspect of possible wrongful possession which is justified *ex post* by undisturbed and continuous use (the former institution of "means of use" normally being the result of peaceful exercise of *de facto* sovereignty over territory subject to the sovereignty of another) may be presumed as conceding priority to prescription, among the prohibited modes of national appropriation applicable to outer space and celestial bodies. It follows, therefore, that the continued monopoly of the two super space powers in outer space activities will not have, in this connection, any legal importance.

B. *Res Extra Commercium*

In accordance with article II of the Space Treaty, the legal regime to be applied henceforth to the outer space realm is analogous to that of the high seas. Thus, under international law, outer space including the moon and celestial bodies will be considered as *res extra commercium*, and consequently, will be excluded from possible national appropriation by claim

[8] *Cf.* SCHWARZENBERGER, A MANUAL OF INTERNATIONAL LAW 117-18 (5th ed. 1967); *contra* see Cheng, *The Extra-Terrestrial Application of International Law*, 18 CURRENT L. PROB. 144 (1965): " . . . outer space, meaning the void between celestial bodies (including the earth and their atmospheric space) constitutes, under existing international customary law, *res extra commercium* in that it is not subject to national appropriation."

" . . . the same cannot be said of celestial bodies. They are *terrae firmae* and there is no reason why they cannot, in law, be brought under national sovereignty through effective occupation and foreign recognition, unless by international agreement States bind themselves not to do so." *Id.* at 148.

[9] *Cf.* OPPENHEIM - LAUTERPACHT, I INTERNATIONAL LAW § 213 (8th ed. 1964).

[10] *Id.* at § 242.

of sovereignty. However, in spite of the express wording of article II of the Treaty, there are some authors who insist on including the notion of sovereignty in the legal regime of outer space.[11]

Although outer space and celestial bodies are not under the sovereignty of any state, this does not mean that the whole vast area is not subjected to rules of general international law; indeed, the mere fact that state sovereignty is excluded from the realm of outer space emphasizes this.[12] Moreover, if international law merely employed a simple rule excluding a certain area from possible national appropriation, this would result in a condition of anarchy and lawlessness in outer space. To obviate such a situation, general international law provides additional rules which guarantee a certain legal order in an area which, by general state consent, is to be regarded as *res extra commercium.*

C. *Free Access*

Free access, as provided for by article I, paragraph 2 of the Space Treaty, must be regarded as complementary to the nonappropriative character of the outer space environment. As such, free access cannot be limited to areas of celestial bodies. Where the Treaty provides that "there shall be free access *to* all areas of celestial bodies," one can attach no derogative significance to the explicit stipulation.[13] Any derogation of the principle of freedom of outer space would be void.[14]

The inherent limitation on free access is its exercise. Like any other right in this sphere, it cannot be regarded as absolute and must be performed with reasonable regard to the interest of others exercising a like right.[15] (*sic utere tuo ut alienum non laedas*) article IX of the Space Treaty makes an *expressis verbis* restatement of this principle in stipulating that activities have to be performed with due regard to the corresponding interests of all other states that are parties to the Treaty.[16]

[11] *Cf.* Goedhuis, *An Evaluation of the Leading Principles of the Treaty on Outer Space of 27 January 1967*, 15 *Nederlands Tijdschrift voor International Recht* 19 (1968), " . . . it is certain that the term outer space—in the meaning of the Space Treaty—embraces also a part of 'atmospheric' space and, in the present state of technology, it is certainly not beyond the bounds of possibility to exercise sovereign rights at least over parts of that 'atmospheric' space. Furthermore the term outer space embraces celestial bodies. And the nature of neither the former nor the latter, makes the exercise of sovereign rights impossible"; *see* Vlasic, *supra* note 5, at 512, where the question is asked: " . . . given the probable scarcity of safe land sites on the moon, will the early explorers be allowed to claim certain *exclusive rights* in sites which they have first discovered and physically occupied [Emphasis added.]?"

[12] See Chapter V, *infra.*

[13] *Cf.* KOPAL V., *Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies*, YEARBOOK OF AIR AND SPACE LAW 471 (McGill Univ. 1966): " . . . the principle of free access relates explicitly to areas of celestial bodies, while neither the fundamental principles nor any other part of the treaty deals with the problem of free access to outer space in general. Although outer space has been declared free, it could not be argued that such freedom includes or presumes the right of free access to outer space without regard to the sovereignty of States over those parts of the airspace [*sic*] adjacent to their territories." The quoted author's reference to the "airspace" is, in this contest, quite irrelevant as the "airspace" does not fall within the scope of the Space Treaty.

[14] See Chapter V, *infra.*

[15] This concept comes to mind when Vlasic, *supra* note 5, at 512-13, asks whether "all . . . participants in lunar exploration (will be) free to use the same site — (which early explorers . . . have first discovered and physically occupied [*sic*] — if no other favourable landing spots exist in the areas?"

[16] Further, to prevent blatant disregard of this principle, the third sentence of the same article

If a state takes advantage of its right in such a fashion as to inflict unjustifiable injury upon another state, then state responsibility is involved because of an abuse of right enjoyed by virtue of an international legal norm.[17]

As the legal regime of outer space does not warrant a situation of lawlessness, it must be recognised that, by general international law, there exists the right of any state to exercise its jurisdiction *in personam* (the logical consequence of "free access"). This jurisdiction exists over a state's own individuals enjoying its protection or owing it their allegiance, as well as over any kind of corporate body having its nationality. This general international law rule is contained, with appropriate modification, in article VIII of the Space Treaty: ". . . A State Party to the Treaty *on whose registry an object* launched into outer space *is carried*, shall retain jurisdiction and control over such object, and over any personnel thereof, while in outer space or on a celestial body [Emphasis added.]."

In the realm of outer space endowed with a *res extra commercium* legal character, there is no room for any notion of exclusive state territorial supremacy. The personal jurisdiction of a state is not only unlimited in that the state possesses all legislative, judicial and executive powers over its own nationals and corporate bodies, but it also emphasizes that the concept of territorial jurisdiction is notionally irrelevant in this sphere simply because it is inapplicable.[18]

It is well known that on the high seas the flag-state not only exercises jurisdiction over the vessel or aircraft, its own nationals and their property on board, but also *over any foreigners* and their goods aboard the vessel or aircraft. From an analytical point of view, an analogous situation will exist in outer space and on celestial bodies where the state of registry of space objects will exercise jurisdiction over foreigners, if any, and their property aboard the space objects. (Such aliens are then under two concurrent jurisdictions.)

This latter type of state jurisdiction, exemplified by the sum total of the powers of a flag-state or state of registry towards foreigners, is known

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states a further consensual norm which imposes a mandatory obligation on a party planning a potentially harmful activity to consult with other parties before proceeding with any such experiment, see Dembling & Arons, *The Evolution of the Outer Space Treaty*, 33 J. AIR L. & COM. 441 (1967).

[17] *Cf.* OPPENHEIM - LAUTERPACHT, *supra* note 9, at § 155(aa); CHENG B., GENERAL PRINCIPLES OF LAW AS APPLIED BY INTERNATIONAL COURTS AND TRIBUNALS 121 (1953); Schwarzenberger, *supra* note 7, at 195-383, although refusing concept of "abuse of right" he arrives at the same conclusion when he states at 308: " . . . the alleged abuse of rights is nothing but an invasion of the rights of other subjects of international law." Vlasic, *supra* note 5, at 517, 518, omits to take into consideration this aspect of general international law when he states, in relation to the mandatory consultation: "To the all important question of the legal consequences of disagreement in the assessment of an experiment or activity, the treaty (similarly) provides no answer." Further it is submitted that the quoted author is not legally justified in asserting, " . . . the provisions of the Space Treaty relating to *control over* potentially harmful space activities are *too general and rudimentary* to offer adequate protection . . . against the hazards brought about by recent advances in technology." *Id.* at 518 [Emphasis added.]. In fact, there is no control provision in the Space Treaty at all. The quoted writer confuses the legal obligation in Article IX with its procedural implementation.

[18] *Cf.* Vlasic, *supra* note 5, at 512, where it is asked whether " . . . the early explorers (will) be allowed to claim certain *exclusive rights* [*sic*] in sites which they have first discovered . . . . " This question is wholly unfounded from a legal point of view.

as "floating island"[19] jurisdiction or rather quasi-territorial jurisdiction (delimited *ratione instrumenti*).[20] Such jurisdiction is *not* over any part of the open seas as such, the superjacent air space, a part of outer space *sensu stricto* or a portion of any celestial body. Rather, it is jurisdiction over vessels, aircraft and space objects (including objects landed or constructed on a celestial body) and over persons, irrespective of their nationality and their property thereon, while they are respectively on the high seas, in the airspace over the high seas, in outer space or on celestial bodies. Further, it is irrelevant whether or not, for example, a space object is bound to the surface of the moon because by analogy, even lighthouses built on the bed of the open sea cannot be compared with islands and must, on the contrary, be regarded in the same character as anchored lightships.[21]

A state cannot claim any exclusive right over a maritime belt circumventing either an anchored lightship or a lighthouse in the open sea. Similarly, no such claim can be made over any area of *terra firma* surrounding a landed spacecraft or installations constructed on a celestial body. There is no valid reason why the Space Treaty should be interpreted as reaching an "explicit"[22] derogation, as between states parties to the Treaty, of the existing general international law rule or even a modification of it having an "overriding character."[23]

D. *Visitation*

Whereas free access in the realm of outer space is based on general international law (the entire outer space area possessing a *res extra commercium* legal status) there is no general international law rule giving the right of free access to those areas under the quasi-territorial jurisdiction of states such as any space objects in outer space, including celestial bodies. However, this does not mean that the latter type of free access cannot be established by a *lex specialis* such as that contained in article XII of the Space Treaty dealing with the question of visits, by state representatives of contracting parties to space objects located on celestial bodies. However, some authors commit fundamental errors by not respecting this nice distinction in relation to free access.[24]

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[19] *Cf.* STARKE, J.G., AN INTRODUCTION TO INTERNATIONAL LAW 210 (6th ed. 1967).

[20] *Cf.* SCHWARZENBERGER, *supra* note 8, at 94; Cheng, *supra* note 8, at 135, 141-42.

[21] *Cf.* OPPENHEIM - LAUTERPACHT, *supra* note 9, at § 190(a). It must also be remembered that although perhaps "terrae firmae," celestial bodies are still *res extra commercium*.

[22] *See* Cheng, *supra* note 4, at 570: "The jurisdiction referred to in Article VIII is quasi-territorial rather than personal in character, for it applies not only to the spacecraft but also any personnel on board, irrespective of their nationality . . . . Furthermore, this jurisdiction of the State of registry applies to these persons . . . also *when they are outside their vehicle . . . the word 'thereof' . . . was intended to make this point explicit*" [Emphasis added.]. The reference made by the quoted writer to the U.S.S.R. delegate Morozov is not convincing because of the delegate's practical rather than juridical approach to the question: *cf.* A/AC. 105/C2/ SR 66 (25.7.66) at 11.

[23] *See* Cheng, *supra* note 4, at 572: "The jurisdiction of the State of registry not only overrides that of the national state of foreign members of the crew, but it appears implicitly [*sic*] to override also that of all other states which may be involved in the launching of the spacecraft, by being the only one to be mentioned in the treaty in this connection."

[24] *See* Adams, *The Outer Space Treaty: An Interpretation in Light of the No-Sovereignty Provision*, 9 HARV. INT'L L. REV. 145 (1968): "Free access to all areas of celestial bodies must also be accorded, and upon this statement and the later provisions for visitation depends the method of

The quasi-territorial jurisdiction of a state over its registered spacecraft and towards all persons and property on board, including the activities of such persons on board the spacecraft or space object assumes that, as a matter of principle, the municipal laws of the state concerned will be applied. Consequently, the state exercising quasi-territorial jurisdiction may grant to foreign individuals municipal law rights that are not based on international law. Thus the acceptance and treatment of aliens is a discretionary matter for the state concerned, except in so far as its discretion is limited by general international law. Specifically, rules which entitle another state to claim concurrent personal jurisdiction over its nationals abroad and protect them against violations of international law by the state of sojourn,[25] rules of so-called "minimum standards in favour of foreigners,"[26] or certain duties which exist in the field of human rights. International treaties also would limit the state's discretion. Since there is no provision in the Space Treaty or elsewhere for the reception of aliens where states exercise quasi-territorial jurisdiction over space objects, it must remain a matter of comity. In practice, this presumes reciprocity on the part of the home state of the aliens concerned. If there is lack of reciprocity, the only method of retaliation for discourteous conduct which can be employed is retortion, since any discourtesy by a state cannot be required as an act performed in violation of international law.

On the other hand a clear legal obligation issues from article XII of the Space Treaty. It opens—under certain conditions contained therein—"all stations, installations, equipment and space vehicles on the Moon and other celestial bodies" to representatives of other states that are parties to the Treaty. It is noted that the legal obligation does not involve the whole space arena.

It must be emphasized that from a purely legal point of view, aliens are merely foreign individuals and cannot be regarded as representatives of states. Thus the latter term is restricted to officials and miscellaneous agents acting not in their own capacity but on behalf of their own state.

However, while the Space Treaty is silent as regards the detailed methods of performance of article XII (no special arrangements are contained therein) the quoted provision includes the principle of reciprocity indicating that the extent of the free access to stations, installations, equipment and space vehicles on celestial bodies, as well as the special protection due to public visitors,[27] will depend, in relations between two states,

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enforcing the treaty's restrictions by the pressure of inspection . . . . The real test of the breadth of the free access principle appears later in the treaty under the inspection provision." Vlasic, *supra* note 5, at 514: " . . . the treaty has adopted a concept of inspection [*sic*] which entitles the contracting parties to 'free access to all areas of celestial bodies' (Art. I, para. 2) and, in particular, to 'all stations, installations, equipment and space vehicles on the moon and other celestial bodies (Art. XII)."

[25] *Cf.* SCHWARZENBERGER, *supra* note 8, at 93.

[26] *Id.* at 105.

[27] The public character of visits makes the request of "reasonable advance notice of a projected visit" (Art. XII) wholly feasible from an international law point of view. In this respect, the assertion of Vlasic is doubted; *see* Vlasic, *supra* note 5, at 515: "The requirement of advance notice of a projected visit and of subsequent consultations before inspection [*sic*] could be equally detrimental to the purposes of inspection by providing the offending state with the opportunity to

on the scope of privileges each gives to the representatives of the other and on condition that the officials of one state will enjoy similar considerations at the hands of the other.[28]

Although, in practice, the completion of arrangements might seriously affect the mutual visits to celestial stations and similar facilities, one cannot go so far as to deny the right of visitation and its correlative duty;[29] moreover, this provision is neither a mere *pactum de contrahendo*[30] nor can a failure to carry it out be considered simply as a discourteous act.[31] Therefore, any refusal to execute this provision of the Space Treaty will constitute a breach of the Treaty involving, as a consequence, state responsibility.[32] Should such a situation arise the injured Party is not limited to

conceal the forbidden equipment or temporarily terminate activities which are prohibited by the treaty." See further LA RECHERCHE SPACIALE an article entitled *Le Traité Spaciale*, Vol. VI, No. 2, Février 1967, at 20: " . . . faut-il voir dans cette . . . disposition une tentative de coopèration au tèmoignage d'un ésprit de méfiance soucieux de faire respecter l'application du principe de l'utilisation pacifique?" See also note 28 *infra*.

[28] On an examination of the text and for the reasons developed above, the writers do not see any legal motive for assigning to Art. XII of the Space Treaty functions similar to those appearing in Art. VII of the Antarctic Treaty 1959 relating to inspection.

For the opposite view, *see, e.g.*, Cheng, *supra* note 4, at 608, *et seq.*; Vlasic, *supra* note 5, at 514-15 (see also note 27, *supra*); Adams, *supra* note 24, at 146; FAWCETT, J.E.S., INTERNATIONAL LAW AND THE USES OF OUTER SPACE 36-37 (1968).

For an official position see the statement of Mr. Goldberg (United States), A/C1/SR. 1492 (28.12.66) at 4: "The United States view of the significance of the Treaty's provisions on arms control had been summed up by President Johnson . . . . The substance of those provisions was contained in article IV, although quite as important were articles I, II and XII, which provided for means of ensuring that each Party respected the arms control provisions. The principle adopted for that purpose was similar to that embodied in the Antarctic Treaty of 1959, namely, free access by all Parties to one another's installations." The present writers are aware that a presidential statement is not a source of law and has no part to play in a *legal* analysis of Article XII of the Space Treaty.

[29] In this respect, the assertion of Mr. Goldberg (United States) is legally well founded where the delegate states: "The words 'on a basis of reciprocity' in Art. XII did not confer any right or power to veto proposed visits to other countries' facilities on a celestial body . . . . As all members of the Legal Sub-Committee had agreed . . . , the words 'on a basis of reciprocity' meant that representatives of a State Party to the Treaty . . . would have a right of access to the stations . . . (and other facilities) on a celestial body, *regardless of whether the second State had ever claimed or exercised a right of access* [Emphasis added.]." *Cf.* A/C 1/SR. 1492 (28.12.66), at 4. This assertion is criticized by Vlasic, *supra* note 5, at 514: "The condition of 'reciprocity' naturally raises a suspicion that the article affords the unwilling party an opportunity to nullify [*sic*] the right of inspection [*sic*], a situation which cannot arise under the more straightforward provisions of the Antarctic Treaty" (see also note 28, *supra*). Under the same misconception is Adams, *supra* note 24, at 146, who says, "It is possible that the term 'reciprocity' creates a veto on inspections [*sic*], if reciprocity is read as meaning 'positive reciprocity'. A State operating on a basis of positive reciprocity will grant rights to another State or its nationals as long as it receives the same rights in return for itself or its nationals. This reading of reciprocity means that the inspection right does not arise until all States have agreed to it, but that, once agreed to, it is available to all [*sic*] . . . . The United States insists . . . that reciprocity here means 'negative reciprocity,' negative reciprocity means that a right already exists between States, but if one nation objects to the exercise of that right, another nation can deny the first nation the same right in return . . . . *Under either interpretation a nation can refuse inspection only by itself foregoing the right to inspect* . . ." [Emphasis added.]." The quoted author thus wrongly presupposes that the right of visitation rests merely on a comity relationship and consequently existence of its legal basis is denied.

[30] *See, e.g.*, in A/AC. 105/C.2/SR. 64 (24.10.66), at 9-10, the statement of Mr. Morozov (U.S.S.R.) who did not have in mind the conclusion of any supplementary agreement of a formal legal character. (This was a reply to Mr. Tello Macias (Mexico) who was enquiring whether "the prior agreement required for visits was to take the form of an annex to the treaty laying down rules to govern all future visits, or whether there would be a separate agreement for each visit." *Id.*).

[31] *E.g.*, as in the opinion of Adams, *supra* note 24, at 146 (see also note 29, *supra*).

[32] For an interesting but curious assertion in this connection, see Bhatt, *Legal Controls of the Exploration and Use of the Moon and Celestial Bodies*, 8 INDIAN J. OF INT'L L. 45 (1968): "It is feared that . . . large-scale national construction over celestial bodies may result in extensive occupation by nationals of a few States only. Further, if these extensively built stations and installations are open to representatives of other States only 'on a basis of reciprocity,' it could pose a threat

measures of retortion (retaliatory conduct) to which no legal objection can be taken,[33] but is entitled, under general international law, to take reprisals,[34] (nonmilitary) against the Party violating the Space Treaty and which is, simultaneously, unwilling to carry out its consequential duties arising from international responsibility for the tort committed.[35]

III. Free Exploration and Use of Outer Space

A. *Prohibition On Private Appropriation Of Space Areas*

Since article II of the Treaty clearly means nothing more than non-acquisition of territorial sovereignty, there can be no territorial jurisdiction over any part of outer space, including celestial bodies. It follows, therefore, that a state's legal norms (its municipal laws) cannot be applied to such an area or territory. Thus no private law principles can be applied for the purpose of appropriation under any municipal legal system of any part of outer space *lato sensu*.[36] In other words, as there is no territorial jurisdiction, there can be no private ownership of any area in outer space or on a celestial body. For such a situation to arise, one would have to assume the existence of a territorial sovereign competent to confer title for such ownership.[37]

However, quite distinct from the question of appropriation of areas of outer space and celestial bodies is the topic of appropriation of celestial resources themselves.

B. *Original Acquisition Of Resources*

Article I of the Space Treaty stipulates free exploration and use of outer space, including the moon and other celestial bodies. These rights[38] also emerge as a consequence of the *res extra commericum* regime that is endowed to the whole realm of outer space. Such an area creates the necessary conditions for appropriation of resources by all comers who may not, however, alter the nature of the area.[39] Further, free extraction of

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to the basic norms of free access and non-appropriation of celestial bodies. . . . The truth of the matter seems to be, that this (reciprocity) provision has to be weighed carefully, so that no State may claim *de facto* appropriation [*sic*] on grounds of safety or any other ground."

[33] *Cf.* Starke, *supra* note 19, at 410-11.

[34] *Cf.* SCHWARZENBERGER, *supra* note 8, at 184.

[35] In this respect see the statement of Mr. Goldberg (United States), A/C.1/RS. 1492 (28.12.66) at 4: " . . . any denial of access (to installations on celestial bodies) would entitle the other Party to resort to such . . . remedies as it might have under international law."

[36] See the assertion of Bhatt, *supra* note 32, at 45.

[37] *Cf.* Cheng, *supra* note 4, at 574.

[38] The Treaty also includes freedom of scientific investigation (Art. 1, para. 3), which, however, is a freedom of action, not a right.

[39] One can take natural resources from the high seas but the high seas remain "*res extra commercium*." There is no ambiguity in the Space Treaty as some authors contend. See Goedhuis, *supra* note 11, at 21: "It is unfortunate that the wording of the . . . fundamental principles in the Treaty gives rise to the possibility of divergent interpretations. Whereas Article II provides that outer space is not subject to national appropriation, Article I, para. 2 stipulates that outer space shall be free for exploration and use." *La Recherche Spaciale, Le Traité de l'éspace, supra* note 27, at 20: " . . . l'introduction du concept de 'non-appropriation' aux côtés du principe de 'non-souveraineté' donne naissance à une confusion où droit public et droit privé sont côte à côte, aux dépens de toute orthodoxie juridique. D'autre part, si l'on juxtapose l'idée de 'non-appropriation' à celle de liberté d'utilisation, on remarque immédiatement que l'ambiguité est totale: comment distinguer le simple occupation de l'appropriation, exclue par le Traité? Quelles sont les limites du

natural resources from outer space and celestial bodies is not only permitted by international law but, moreover, international law gives good title to original acquisition of resources which are open to all. Consequently, every state can enact its own legislation concerning the private appropriation of resources extracted from this area because each state has the legal capacity to confer private ownership rights on the subjects of its municipal laws. A similar situation is encountered in fishing activities and other types of exploitation and exploration of the high seas.[40]

Traditionally, free use of natural resources in a *res extra commercium* area could not alter the nature of the area because these resources were regarded as naturally inexhaustible and therefore sufficient for all;[41] but whenever it was thought advisable on a regional basis, to restrict and regulate their exploitation, states did so by entering into treaties. Such regulations were in no way binding upon states which were not parties to these treaties, thereby resulting in a *res inter alios acta* situation. Such states were legally justified if they attempted to frustrate the purpose of these treaties.

However, efficient methods of exploitation used at the present day would seem to leave no room for the ancient concept of natural inexhaustibleness of resources. The result is that general legal regulation appears to be necessary to safeguard a *res extra commercium* area for the purpose of free use. This situation is exemplified by the Geneva Convention on Fishing and Conservation of the Living Resources of the High Seas (1958) which indicates the intention to prevent wasteful depletion in the general interest of mankind[42] or perhaps in more legal terms, in the interest of the international community as a whole.[43]

Presently, the universally recognised concept is that of equitable use of natural resources and it has been expressly stated in article I paragraph 1 of the Space Treaty providing that exploration and use of outer space and celestial bodies "shall be carried out *for the benefit and in the interests of all countries* [Emphasis added.]." If exploration and use are carried out in a manner which does not respect the new legal concept pertaining to natural resources in a *res extra commercium* area, then the consequences

droit d'utilisation? S'agit-il d'utilisation consomptive ou non?" *See* further Bhatt, *supra* note 32, at 42-43: " . . . the problem is how to avoid occupation or even appropriation [*sic*] of the Moon and its resources while making use of them."

[40] However, there can be no analogy between the continental shelf and, for example, an area surrounding a lunar station. Such a station would be under quasi-territorial jurisdiction (delimited *ratione instrumenti*) and could not manifest any territorial connection with the surrounding area. The result is that the notion of the continental shelf cannot be applied to justify any exclusive right to explore natural resources in any lunar area. But see Vlasic, *supra* note 5, at 512-13, where the question is asked " . . . will they be permitted to assert exclusive rights in certain useful materials located on . . . *(landing) sites or in their vicinity* [Emphasis added.]." *See also* the comment of Cheng, *supra* note 4, at 574-76, " . . . if the example of the continental shelf is any guide . . . . "

[41] *Cf.* P. PRADIER-FODERE, TRAITE DE DROIT INTERNATIONAL PUBLIC EUROPEEN & AMERICAN Tome V at 573 (1891): "Celui qui pêche en pleine mer ne fait de tort à personne, car les produits de la pleine mer sont inépuisables et suffisent à tous."

[42] *Cf.* C.J. COLOMBOS, THE INTERNATIONAL LAW OF THE SEA 424 (6th ed. 1967).

[43] But see the assertion of Bhatt, *supra* note 32, at 47: "The freedom of use of resources will bring in claims of exclusive [*sic*] appropriation of resources. And such exclusive claims for resources have in the past led to claims for territory . . . . The exhaustible resources such as strategic minerals, etc., will be a likely bone of contention."

differ from those of the past: It is no longer a matter of mere *inter partes* interest, as recalled above, but an *erga omnes* interest[44] because the new concept is an obligation based on a peremptory norm of general international law.[45]

It is of little importance, in so far as the preparatory work of the Space Treaty is concerned, that the draftsmen intended this first part of article I to be anything more than a simple declaration having no specific legal significance,[46] or only a mere moral value.[47] Indeed, the peremptory obligation imposes itself regardless of any consensual arrangement, or even in spite of such an agreement, if the latter aims to derogate it.[48]

C. *Derivative Acquisition Of Resources*

While space resources are free for original acquisition under private law, they may also be the object of transactions creating, what the present writers term, *derivative acquisition.* Included in the modes of derivative acquisition are transactions at the international private law level and also at the public international law level.[49]

Although original acquisition of natural resources is well regulated by rules of general international law (reproduced in article I, paragraph 1 of the Space Treaty) there are, on the other hand, no limits in general international law on the conditions for derivative acquisition of resources which have already been extracted or exploited. To prevent arbitrary discrimination in this field and to ensure equal treatment, treaties must be created. There are no provisions to this effect in the Space Treaty, and therefore, no basis of legal equality exists which would guarantee to non-space Powers the right to equal distribution of the benefits of natural resources extracted from outer space by a Space Power.[50] No state responsibility can arise under the Treaty for disregard of the demands of other states who claim the benefit of exploited resources. With due respect to the views of some state delegates[51] terms of article I of the Treaty ("without discrimination of any kind," "irrespective of . . . degree of economic or scientific development") are nothing more than legally redundant expressions,[52] even in relation to the regime of *original* acquisition of natural resources in outer space.

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[44] See Chapter V, *infra.*

[45] In this connection, see the attitude, although somewhat less than bold, taken by Cheng, *supra* note 4, at 576: " . . . Article I(1) of the treaty must be regarded as superimposing on the freedom of exploration and use . . . *a principle of far-reaching significance* [Emphasis added.]."

[46] *Cf. Id.* at 578.

[47] *See, e.g.*, the position of Mr. Rao (India), A/AC.105/C.2/SR 63. (20.7.66) at 7: " . . . it did not seem (as regards the first sentence of Article I) to lay down a legal obligation."

[48] See Chapter V, *infra.*

[49] *Cf.* P. SHEPARD, SOVEREIGNTY AND STATE-OWNED COMMERCIAL ENTITIES 90-100 (1951).

[50] *See also* Cheng, *supra* note 4, at 578-80; Dembling & Arons, *supra* note 16, at 430 n.53.

[51] *See, e.g.*, the comment of Mr. de Carvalho Silos (Brazil) A/AC. 105/C2/SR. 64 (21.7.66) at 9: "The words 'and shall be the province of all mankind' . . . might be replaced by the words 'irrespective of the state of their scientific development' . . . [t]he Treaty should reflect the balance between the space Powers and the non-space Powers." Further, see the delegate of Romania, Mr. Glaser A/AC. 105/C2/SR.63 (20.7.66) at 7. For a critical note (with which present authors concur) on the concept of "most-favoured nation," see Dembling & Arons, *supra* note 16, at 430, 442-43.

[52] *Cf.* Cheng, *supra* note 4, at 566. Some authors, however, believe that Article I creates a legally binding rule for the derivative acquisition of resources. *See, e.g.*, A-B.N. PAPACOSTAS, *Quelques*

The only provisions in the Space Treaty relating to derivative acquisition are those promoting international cooperation (notably articles IX and XI). These, however, are mere *pacta de contrahendo*[53] and will require further negotiation to reach a more specific agreement. With regard to derivative acquisition of information which is the result of freedom of scientific investigation, attempts were made to create a specific legal obligation.[54] Finally, however, the Treaty had to content itself, in article XI, with a purely voluntary obligation ("to the greatest extent feasible and practicable") as regards the disclosure of results achieved in outer space activities. Article V, paragraph 3, however, is an important exception for it constitutes a *mandatory* obligation to report any phenomena which might be considered dangerous to the life or health of astronauts.[55]

IV. Peaceful Uses of Outer Space

A. *The Prohibition On The Use Of Force*

The maintenance of international peace and security, although linked to outer space by article III of the Space Treaty, is a topic quite independent of the *res extra commercium* status attached to outer space (*lato sensu*). The prohibition of threat or use of military force which is in effect the main content of the quoted article is, however, universal in scope and is valid for the activities of states anywhere. Its restatement in the context of the Space Treaty is merely a declaration of a well-established rule of general international law.

Moreover, not only is the prohibition of use of force a rule of general international law; it is one universally recognised as being of peremptory character.[56] As a consequence, in enforcing respect for this positive obligation, states *inter se* cannot resort to acts of military reprisal because such acts, themselves, violate the prohibition of use of force. Such a reprisal is not considered by third states as a *res inter alios acta* in which they have no right to interfere, but, on the contrary, it must be considered as a matter affecting their own legal interests because the peremptory norm of international law, namely, the prohibition of use of force, creates a legal relationship *erga omnes*. The only method of self-help is common enforcement action (*actio communis*) by the international community as

remarques sur le Traité sur les principes devant régir des Etats dans le domaine de l'exploration et de l'ütilisation de l'espace extra-atmospherique . . . , 21 Revue Francaise de Droit Aerien 125 (1967).

[53] The Preamble (particularly paras. 4 and 5), Art. I, para. 3, and Article X are other examples.

[54] See the position of the United States delegate, Mr. Goldberg, A/AC.105/C2/SR.70 (3.8.66) at 5. " . . . States engaging in activities . . . should inform the other States of those activities and make their findings available to the public and to the international scientific community. To provide otherwise would be to go against the purposes of the treaty and to deny to the non-space Powers the benefits of research undertaken on celestial bodies." Mr. Partli (Hungary) was more specific, A/AC.105/C2/SR.65 (22.7.66) at 4: " . . . that idea would have to be put into *practice on a voluntary basis* . . . [Emphasis added.]." On this point, *cf.* Cheng, *supra* note 4, at 578.

[55] The humanitarian aspect of this provision imposes a distinct legal obligation which is discussed at Chapter V, *infra*. The distinction between the stipulations in Art. V and Art. XI infers that there is no ambiguity. But see Dembling & Arons, *supra* note 16, at 436: " . . . Article XI is ambiguous, as distinguished from the comparatively unequivocal obligation imposed on parties to the Treaty by the third paragraph of Article V."

[56] See Chapter V, *infra*.

a whole. Chapter VII of the United Nations Charter empowers the Security Council to take action where the maintenance of international peace and security is involved on behalf of the Members of the United Nations. However, as organised community action can never be immediate, the United Nations Charter did not impose upon the right of self-defense.

Any state is justified, *ex lege* and by virtue of article 51 of the Charter, to protect itself individually or jointly with other states until the Security Council takes action under the relevant provisions of the Charter. Thus states, acting in self-defense, determine for themselves whether the necessary conditions exist and whether their action is proportionate to the attack. However, they do so at their own risk and subject to international law and the control of the Security Council.

In short, self-defense measures may be taken only against an illegal act,[57] attributable to another subject of international law. The right of self-defense depends on illegal action which must actually exist. Any error, even in good faith, is no substitute for this constitutive element of self-defense.[58] Self-defense can no longer be simply equated with justified freedom of action,[59] for it became, with the advent of the prohibition of use of force, a right which does not differ from any other right under international law. Its exercise cannot amount to an international tort; consequently, self-defense measures taken against self-defense measures are notionally excluded. The element of proportionality inherent in the right of self-defense excludes any further anticipatory action of the use of force in a situation where, for example, only the threat of force occurs. Therefore, as a principle, any preventive use of force becomes synonymous with illegal aggression: The so-called imminent armed attack is no sufficient legal title for the exercise of the right of self-defense.[60]

The legal regulation of measures of self-defense, although not expressly stated in article III of the Space Treaty, is nevertheless involved as a consequence of the concept of maintenance of international peace and security. On the other hand, the question of self-defense must be considered apart from the "demilitarization" provision (article IV) of the Space Treaty, although some authors believe otherwise.[61] The distinction arises because

[57] For conditions of lawful self-defense measures, *see* II G. SCHWARZENBERGER, *International* (1968); J.L. KUNZ, THE CHANGING LAW OF NATIONS 563-72, 621-56 (1968); P.C. JESSUP, A MODERN LAW OF NATIONS, AN INTRODUCTION 163-69 (1958).

[58] There is no legal justification in believing: "It is possible . . . that a State may not even perceive that the [space] vehicle is in distress, and destroy it for making an unauthorized entry into its airspace" as asserted by Adams, *supra* note 24, at 151.

[59] *See* the formula of Webster, D., in connection with the *Caroline Case*: "Undoubtedly it is just, that, while it is admitted that exceptions to the rules of international law, especially the principle of the territorial integrity of States growing out of the great law of self-defense do exist, these exceptions should be confined to cases in which the necessity of that self-defense is instant, overwhelming, and leaving no choice of means, and no moment for deliberation" (quoted in J.B. MOORE, II A DIGEST OF INTERNATIONAL LAW 412 (1960).

[60] For the opposite view *see* J.E.S. FAWCETT, INTERNATIONAL LAW AND THE USES OF OUTER SPACE 38-39 (1968): " . . . Article 51 (of the U.N. Charter) covers the respective rights and duties under Chapter VII of the Security Council on the one hand and Members of the United Nations on the other, where an armed attack, constituting a breach of the peace or aggression, occurs, but . . . the extent of the inherent right of self-defense is left open by the Article, and in particular whether it includes a right to use force in anticipation of an armed attack, or in situations other than armed attack."

[61] *See* notes 69, 70 and 71, *infra*.

there are no general international law rules prescribing limits for the construction of military fortifications or the stationing of troops. Any limitation on military activities in any particular area must be fixed by treaty. Article IV of the Space Treaty is evidence of just such an agreement.

B. *The Demilitarization Of Outer Space*

The term "demilitarization" denotes an agreement of states, by way of treaty, not to fortify or station troops on a particular territorial zone or area, the purpose being to prevent armed conflict and to gain security in an agreed area. In the outer space realm, the demilitarization agreement reached by article IV of the Space Treaty constitutes two separate demilitarized areas: On the one hand, outer space *stricto sensu*; on the other, all celestial bodies. They differ only in the extent to which the right to place military hardware in outer space is limited. In paragraph 1 of article IV, the Parties to the Treaty have agreed not to place in orbit around the Earth any weapons of mass destruction, nuclear weapons being stipulated *expressis verbis*[62] or to station such weapons in outer space in any other manner. As regards celestial bodies, paragraph 2 of the quoted article establishes total demilitarization.

The complete demilitarization of celestial bodies is constituted by the phrase "exclusively for peaceful purposes," found in article IV, paragraph 2. While this well known expression has been the object of many misleading interpretations, it must not be allowed to obscure the proper legal construction of the entire second paragraph of article IV.[63] Further, the express declaration that "the use of military personnel for scientific research or for any other peaceful purposes shall not be prohibited" also indicates the extent of the demilitarization of celestial bodies. Such emphasis would be quite ineffectual if demilitarization of celestial bodies were not to be regarded as total, but only as partial according to the list contained in paragraph 2 of article IV ("The establishment of military bases, installations and fortifications, the testing of any type of weapons and the conduct of military manoeuvres on celestial bodies shall be forbidden.")

[62] There is no legal justification for attempting to increase the scope of weapons or activities prohibited, but *see* Kopal, *Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space*, YEARBOOK OF AIR AND SPACE LAW (McGill University, 1966), at 482: "Although, in our judgment, it is *not possible to deduce from* . . . [the] *lack of explicit prohibitions that other military activities in outer space* (in narrow sense)—activities such as the launching of satellites for purposes of reconnaissance and detection, laboratories for military exploration, and other military ventures in outer space—are *eo ipso permitted or recognised as lawful*, the present space treaty represents in this respect only a halfway measure and much still remains to be done in order to reserve *this 'province of mankind' for peaceful purposes only* [Emphasis added.]."

[63] See also, in this connection, Cheng, *supra* note 4, at 604-08. The scope of demilitarization in Art. IV, para. 2 does not include a prohibition on espionage. For such activities to be prohibited, there would have to be an express treaty provision because espionage is wholly lawful under international law. It may be banned, however, by domestic law, but even if State laws are infringed, espionage cannot constitute State responsibility. For a conflicting opinion, see Vlasic, *supra* note 5, at 514: "The relevant provisions (*i.e.* of Art. IV/2) of the treaty do not make plain whether observation conducted by the military from celestial bodies is permissible." Further, the prohibition of threat or use of force has, in essence, nothing to do with questions of *illegal* observation as was believed by Cooper, *Some Crucial Questions About the Space Treaty*, AIR FORCE AND SPACE DIGEST, March, 1967, at 111: "The inclusion of the provisions of Article III . . . may well lead to the reopening hereafter of the controversy as to whether satellite observations violate international law. If this be true, then they are banned by the Space Treaty."

The consequence of adopting the latter view is that the phrase "shall be used . . . exclusively for peaceful purposes" would have to be interpreted as being linked to article III which, however, simply restates the generally recognized prohibition of any aggressive activity. Such an interpretation would thus disregard the completely separate prohibition contained in article IV for, in its framework the expression "shall be used . . . exclusively for peaceful purposes," has a constitutive function.[64] This point of view cannot be destroyed merely by referring to the preamble of the Space Treaty which employs the expression "use . . . for peaceful purposes" for outer space generally.

Although norms in the preamble and in the operative part of a treaty have equally binding force,[65] there exists the well established principle of free will and independence of states which implies that treaty provisions must be interpreted in a restrictive manner if their wording is not clear or is at variance. This principle must also be applied when interpreting the Space Treaty because a limitation upon the free will and independence of states can never be presumed.[66] Such a restrictive interpretation of the Space Treaty does not affect its applicability as a whole.

The purpose of a demilitarization agreement should not be confused with the notion of "neutralization" of a particular zone for the object of neutralization is to exclude an area from the region of war.[67] A demilitarized zone, however, may be the "theatre" of war and, consequently, lawfully conditioned self-defense measures[68] may be taken[69] against an

[64] *See* Dembling & Arons, *supra* note 16, at 434: " . . . any military use of outer space must be restricted to non-aggressive purposes in view of Article III, which makes applicable international law including the Charter of the United Nations"; Meyer, *The Term "Peaceful" in the Light of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space*, 17 ZEITSCHRIFT FUR LUFTRECHT UND WELTRAUMRECHTSFRAGEN, No. 2, 118 (1968): " . . . it seems impossible to conclude that in Outer Space only the use of *nuclear weapons and weapons of mass destruction* should be forbidden and that the military activities forbidden in Art. IV, para. (2) for . . . celestial bodies should be allowed without any further restriction in Outer Space, so that their use in Outer Space should be allowed even when they are to be determined as (non-peaceful). The legal status of Outer Space remains unchanged. Military activities forbidden for . . . celestial bodies can indeed be performed in Outer Space, but only as far as they are to be considered as *'peaceful,'* this means 'nonaggressive.' "

[65] *Cf.* Fitzmaurice, *The Law and Procedure of the International Court of Justice, 1951-54: Treaty Interpretation and Other Treaty Points*, 33 BRIT. Y.B. OF INT'L LAW 227 (1957). On interpretation of the preamble, see Atty. Gen. v. H.R.H. Prince Ernest Augustus of Hanover, 1 ALL E.R. at 49 [1957]. However, see Goedhuis, *supra* note 11, at 21: " . . . the Preamble is rather of ideological than of legal importance . . . . "

[66] The Case of the S.S. "Lotus" [1927] P.C.I.J. Ser. A, No. 9 at 18: "Restrictions upon the independence of States cannot . . . be presumed"; *Id.*, B. 12.1925 [The Advisory opinion on the Treaty of Lausanne, Article 3, para. 2] at 25: " . . . if the wording of a treaty provision is not clear, in choosing between several admissible interpretations, the one which involves the minimum of obligations for the parties should be adopted."

[67] For a distinction between demilitarization and neutralization, *see generally* OPPENHEIM-LAUTERPACHT, II INTERNATIONAL LAW § 72 (7th ed. 1961).

[68] The term 'self-defence measures' should not be given a technical connotation as done by J.E.S. FAWCETT, *supra* note 28, at 34-5: "The Article (IV) as a whole gives the impression that a more limited demilitarization of . . . celestial bodies was intended than of Antarctica, and that their use for peaceful purposes does not exclude *measure of defence, for example*, the incorporation of stations on them in missile warning or satellite inspection systems" [Emphasis added.]; or at 39: "Self-defence must, if it is to serve its purpose, be a . . . process in time, a mobilization of forces, a state of readiness, a strike at the opposing forces." Further, Cooper, *supra* note 63, at 108: "The writer is of the personal opinion . . . that the Treaty will not prohibit peacetime military defence measures in outer space and that these are actually prohibited only on the moon and other celestial bodies."

[69] On this, see the doubtful assertion made by Cooper, *supra* note 63, at 104: "The Treaty

armed attack actually occurring in the area in question. But a violation of a demilitarization agreement by simply placing armed forces or weapons in such an area does not constitute the right to exercise self-defense measures[70] because such action does not violate the prohibition of use of force; it merely transgresses the demilitarization agreement.

V. Jus Cogens in Space Law

A. *The Right To Withdraw From The Space Treaty*

The Geneva Convention of 1958 codified the regime of *res extra commercium* on the high seas while the Space Treaty of 1967 established a similar legal regime in outer space. However, unlike the former, the Space Treaty contains a clause (article XVI) which allows any state that is a Party to the Treaty to withdraw from it one year after notification of its intention to do so. Therefore the question arises whether space law is, in fact, durable, especially if one considers the existing and perhaps continuous factual monopoly of use enjoyed by the two Space Powers.[71]

In this connection, little significance can be attached to a simple recall to general customary international law made by certain authors[72] who, without being exact, attempt to emphasize that space law principles have the quality of rules of general international law. The shortcoming of such an attitude is illustrated by the fact that general international law as such does not, in principle, deprive states of their free will to derogate therefrom. They may exclude its application in their mutual relations by means of a special agreement *inter partes*. Such a derogation may be created expressly or by acquiescence. Therefore, the right enjoyed by the state under general international law expressly or impliedly disappears,

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refers among other things to the 'use of outer space for peaceful purposes,' but leaves open the old question as to whether 'peaceful' means nonmilitary or nonaggressive. If 'nonmilitary' should be the accepted construction *(self) defense activities will be affected* [Emphasis added.]." *See also* the official position presented by Mr. Cocca (Argentina), A/AC.105/C.2/SR. 80 (5.7.67) at 17: " . . . the principle of the inherent right of self-defence *could not be invoked in outer space* because the Treaty . . . had abrogated that right by banning the use of all weapons, both conventional and nuclear [Emphasis added.]."

[70] Substituting a utilitarian consideration which is merely an argument *de lege ferenda*, for the law, J.E.S. Fawcett, *supra* note 28, at 39, states: " . . . the placing of a nuclear weapon or other weapon of mass destruction in orbit in breach of the Outer Space Treaty might with reason be regarded as an initiation of armed attack, and given the potentialities of such a weapon as a general threat justifying collective defence [*sic*]"; a further assertion of the quoted author also disregards the concept of quasi-territorial jurisdiction; (in the present paper at Chapter II). *Id.* at 42: "The *establishment* of stations on . . . celestial bodies contrary to the Treaty, and in particular Article IV, poses the question whether, failing effective action by the Security Council under either Chapter VI [*sic*] or Chapter VII, *the use of force against them* is precluded by Article 2(4) of the Charter. *I believe that the answer must be that it is not* . . . , and action against such stations *could not infringe the territorial integrity of a State*, given the principle of non-appropriation. Any right of tenure *in the station*, regarded as territorial by analogy would be terminated by its *unlawful* use [Emphasis added.]."

[71] See the comment made by Senator McCarthy during the hearing before the Committee on Foreign Relations of the U.S. Senate: " . . . if we are going to claim sovereignty in this area (of outer space) and we put the prohibition in this treaty (*i.e.* Space Treaty), we can withdraw after a year. If it were in the charter (of the United Nations), you would have to reject the charter and leave the U.N." *Hearings Before the Comm. on Foreign Relations, United States Senate, 89th Cong., 1st Sess., on Executive D*, 90th Cong., 1st Sess., at 56 (1967). [Hereinafter *Hearings*].

[72] *See, e.g.*, Goedhuis, *supra* note 11, at 39: "An interpretation which would allow States to claim sovereign right over outer space by withdrawing from the Treaty, should be rejected as incompatible with the freedom of outer space as a principle of general international law."

leaving the state unconcerned about the fulfillment of the correlative duty. Such a duty thus loses its *raison d'être* in a specific relationship between individual parties and, consequently, no responsibility arises from non-fulfillment.

In general, one of the characteristic features of universal international law is that it should be applied if there is no other express or tacit agreement between individual parties. Any such arrangement, however, is strictly *res inter alios acta*, as regards all third states. So if the present Space Powers exercised their right to withdraw from the Space Treaty, they would still have full legal possibility to execute a special agreement among themselves which would avoid the application of general international law rules. But it is important to note that this would be done in complete disregard of the interests of all other states.

However, there are certain international law rules which have a quite different character in that they prescribe the conduct of states in a peremptory fashion in the interests of the international community as a whole. In such cases it is not legally possible, *inter partes*, to abandon the rules of general international law because peremptory rules create an *erga omnes* relationship. Therefore, any failure by an individual state to carry out its *juris cogentis* obligation cannot be accepted, because non-fulfillment affect the interests of all states and, consequently, all have the collective right to claim (*actio communis*) for the tort committed to the international community as a whole. As no *inter partes* deviation is legally justifiable, there can, therefore, be no legal conditions in the event of an express derogation of the peremptory norm. Any such derogation would be null and void *ab initio*. Its performance would remain without legal relevance causing a violation of the peremptory rule itself.

Consequently, states that are Parties to the Space Treaty which exercise their right to withdraw under article XVI will be bound, in any circumstances, by some general international law rules of a *jus cogens* character, while, on the other hand, they will retain full right to derogate from other rules of general international law which are in principle, *juris dispositivi*.

B. *Peremptory Rules In The Law Of Space*

Four groups of peremptory norms are applicable to the realm of outer space:

(1) The principle of non-appropriation of outer space, including celestial bodies creates a *res extra commercium* legal regime. It further implies other general rules, including the prohibition of exclusive jurisdiction over any part of outer space *lato sensu*,[73] and the establishment of the right of free access to any part of outer space and celestial bodies. Free use, which is a consequence of the legal regime attached to outer space is, however, only partly governed by general international law.[74]

[73] This prohibition is absolute and therefore imposed upon any subject of international law. For a different opinion, see A-B.N. Papacostas, *L'influence de l'activité spacial sur la notion de la souveraineté*, 22 REVUE FRANCOISE DE DROIT AERIEN 263 (1968), where reference is made to the United Nations.

[74] See Chapter V, sec. B(2), *infra*.

The institution of *res extra commercium*, which has long been recognised in general international law as ruling the legal regime of the high seas is, when applied to the realm of outer space, merely an example of the application of existing general international law rules to a new field of state activities. The *res extra commercium* status of outer space and the principle of non-appropriation are of a peremptory character.[75]

(2) The limitation on use of natural resources in outer space by due regard to the benefit and interests of the international community as a whole is the second group.[76] Traditionally, general international law did not impose any limitation on the *res extra commercium* regime because freedom of action was accepted as a consequence of the notion of inexhaustibleness of natural resources on the high seas. However, a limitation was introduced at approximately the same time as the legal regime of outer space began its process of crystallisation. In this respect, like the Geneva Convention of 1958,[77] the Space Treaty has a norm-creating effect.

In other fields of use of outer space no legal limitation has been imposed and thus, the traditional concept of freedom of action still exists. This is the legal situation as regards the freedom of scientific investigation[78] in paragraph 3 of article I, unless certain contractual limitations of *pactum de contrahendo* character are imposed, as for example, in articles IX and XI which refer to international cooperation.

(3) The principle of prohibition of threat or use of force as a peremptory norm has no specific relationship to the legal regime of outer space. Its inclusion in article III of the Space Treaty is merely a restatement of a recognized rule of general international law. Non-observance of preemptory norms by individual parties cannot be redressed by recourse to reprisals by these states because the interests of third states are affected.[79] In relation to the prohibition of use of force, however, the right of self-defense exists for the purpose of protecting the vital interests of the victim state until measures of collective self-help are implemented. Further, the norm governing the right of self-defense is also of peremptory character for it precisely defines the scope of the prohibition of use of force.

[75] In this relation see the opinion expressed by Mr. Goldberg: " . . . there are large areas . . . and this is a very important one, which might be treated in the charter of the United Nations to make it a rule of the charter and an overriding rule then of international law binding upon all States," *Hearings*, *supra* note 72, at 57.

[76] However, see Goedhuis, *supra* note 11, at 21: " . . . the important question arises as to what precisely the treaty provision of the exploration and use having to be carried out for the benefit of all countries intends to convey." The quoted writer later reaches a conclusion which is doubted (*Id.* at 23): "It is submitted that in a treaty which allows—if only by implication—military uses of outer space, provisions of a *general* nature aimed at the use of outer space for *the benefit of all States*, are meaningless." For a similar interpretation see M.G. Markoff, *Sur l'Interprétation Juridique de l'Article 4 du Traité Régissant les Activité Spaciales des Etats*, 31 REVUE GENERALE DE L'AIR ET DE L'ESPACE 43 (1968).

[77] See Chapter III, sec. B, *supra*.

[78] P. De La Pradelle imputes peremptory character to the whole of Article I in *La Charte de l'Espace et des Corps Célestes*, 30 REVUE GENERALE DE L'AIR ET DE L'ESPACE 133 (1967): "Les régles établies dans . . . (le Traité) correspondent à deux catégories de dispositions. Une première catégorie, réduite aux deux premiers articles, énonce . . . les règles fondamentales d'un véritable *jus cogens* spacial qui, par nature, échappe au pouvoir d'amendement et au droit de retrait que les Etats, seuls parties au Traité, sont habilités à exercer, en application des articles XV et XVI."

[79] See Chapter IV, sec. A, *supra*.

(4) Rules of humanitarian consideration constitute the final norm. Such rules oblige states to save the lives of astronauts in distress (as human beings), regardless of nationality. Their emergency landing on, or entry into areas under territorial or quasi-territorial jurisdiction of a state cannot be regarded as unauthorized or in vioaltion of the domestic law of the state. Therefore, a state cannot prevent astronauts from returning to their homeland. Further, states are obliged to introduce the necessary legislative and judicial measures to ensure that the subjects of their municipal law will act in conformity with these humanitarian principles.

Indeed, this is the only legal interpretation which can be attributed to the somewhat florid phrase "envoys of mankind" appearing in article V of the Space Treaty.[80] Any other legal meaning which can be attached to the term is of no consequence because not only is it omitted from the subsequent special Agreement on Rescue and Return of Astronauts[81] but also no derogation is permitted from the peremptory validity of the humanitarian principles.[82] On the other hand, any further special treatment in favor of astronauts, in particular the active assistance for their return to the state of registry of their space vehicles, as well as the conduct of states towards space objects making an emergency or unintended landing and their return to the state of registry, depends exclusively on the consensus of states, expressed partly in the Space Treaty but predominantly in the Treaty on Rescue and Return of Astronauts. The concept of humanitarianism is also at the basis of paragraph 3 of article V of the Space Treaty stipulating the compulsory notification of all space phenomena which are likely to constitute a danger to the life of astronauts.[83]

The four groups of peremptory norms of the Space Treaty, quoted above, are the most important rules of the outer space legal regime. They cannot be amended according to article XV of the Space Treaty nor can they be ignored by any states which eventually withdraw from the

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[80] A general interpretation is introduced by Kopal, *Problems of Legal Responsibility for Space Activities*, 11 STUDIE Z MEZINARODNIHO PRAVA (Prague) 76, n.20 (1966), (in English): "The terms of 'envoys of mankind' . . . does not seem to have been selected *with regard to its juridical content, according to which astronauts* descending on the territory of other States *would be entitled to privileges and immunities assured by international law to diplomatic representatives.* Nevertheless, special measures of protection and friendly treatment should be offered to those heroes of our age, without regard to their nationality [Emphasis added.]." On an official level, a strange explanation was also given by Mr. Ustor (Hungary), A/AC.105/C.2/SR.44 (22.9.65): " . . . the statement that 'states shall regard astronauts as envoys of mankind in outer space,' . . . was taken to mean that astronauts were entitled to the privileges and immunities of diplomatic envoys, *i.e.* that they fell outside the jurisdiction of host States. In his view that interpretation was valid in the case of the peaceful use of outer space but would have absurd consequences in the contrary case. If the use of outer space did not pursue peaceful purposes . . . the crews would simply be soldiers, or perhaps spies, and neither the objects nor the crews would be of the same nature as those contemplated in the Declaration (of Legal Principles)." For an absurd conclusion see A-B.N. Papacostas, *Quelques remarques sur le Traité* . . . , 21 REVUE FRANCAISE DE DROIT AERIEN 127 (1967), where astronauts are endowed with a new nationality—that of humanity.

[81] Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space. The text appears in U.N. Doc. A/6804/Add 1. (16.12.67). The Treaty entered into force on 3 December 1968.

[82] Further, an act of reprisal cannot be justified for nonobservance, but see Adams, *supra* note 24, at 151: " . . . a state may not feel bound *to go to the assistance of astronauts* from a state that has not lived up to its obligations under the treaty [Emphasis added.]."

[83] This indicates the distinction between the reporting obligation under Art. V and that of Art. XI, the latter being based on the voluntary principle discussed above. See *supra* note 55.

Treaty. As preemptory rules of general international law they form, however, only a section of those singular rules which are destined to protect the vital interests of the international community as a whole. It is these rules which create the so-called public order in the international legal system.[84]

VI. Conclusion

The Space Treaty is nothing more than a culmination of a law-making process in which the general consensus of states finally reached written form. Besides declaring rules of general international law (article III), the Treaty is partly a norm-applying act of existing rules to a new field of state activities (for example, articles I, II) and partly a norm-creating instrument (article I, paragraph 1). Further the Treaty contains provisions which are contractual obligations derogating from general international law (articles IV, VI, XII). Also there are those contractual obligations specifically limiting the freedom of action of states, these latter obligations being characteristically *pacta de contrabendo* (for example, article IX).

The variety of rules in the Space Treaty's provisions must be taken into account, otherwise the value of the Treaty itself, as a legal document, will be sadly underestimated. It is the failure of many authors to adopt this course that has produced such heterogeneous and assorted articles on the Space Treaty which are rifled with questions and doubts. In this brief elementary discussion, it was the aim of the present writers to draw attention to the diversity of rules contained in the Space Treaty for the purpose of facilitating interpretation. There was no intention to present an exhaustive analysis of the Treaty as a whole which would, in any case, cover a much more expansive field.

[84] There is no special "public order in outer space." This term, as used by certain authors, is purely of political significance or is motivated by a simple *de lege ferenda* consideration. *See, e.g.*, M.S. McDougal, H.D. Lasswell, & I.A. Vlasic, Law and Public Order in Space (1963).